

#### ABSTRACT

In a multi-band amplifier, provided are a first differential voltage-to-current converting circuit for converting a first frequency signal into a current and outputting the current, a second differential voltage-to-current converting circuit for converting a second frequency signal into a current and outputting the current, and a current transposition point connected in phase with and in parallel with output terminals of the first and second differential voltage-to-current converting circuits. A base-grounded amplifying circuit is connected in phase with and in series with an output terminal of the current transposition point. With this configuration, the circuit of a virtual ground point and the following of after voltage-to-current conversion can be provided in common by using a cascode amplifier as a low-noise amplifier, making it possible to constitute a multi-band amplifier minimized in the connection loss resulting from interconnection.